

IN THE CLAIMS:

Cancel claims 1-23.

Add the following new claims:

24. (new) An arrangement for variable actuation of gas exchange valves of internal combustion engines comprising: at least one cam on a camshaft mounted in said housing and rotating dependent on engine speed; an intermediate link driven by said cam; a bolt having an axis and mounting said intermediate link, said intermediate link carrying out an oscillating purely rotational motion about said axis, said bolt being displaceable parallel to itself along an adjustment curve; a control curve on said intermediate link and having a rest region as well as a lift region; a driving element actuated by said control curve for actuating in turn at least one of said valves; a four-bar linkage connected with an engine cylinder head for guiding said bolt and having first joints and second joints, said first joints comprising two joints fixed and spaced from each other in a first spacing, said second joints comprising two second joints each pivotable about one of said first joints, said two second joints having a spacing between them smaller than the spacing between said two first joints for guiding said bolt on a substantially arc-shaped adjustment curve.

25. (new) An arrangement as defined in claim 24, including pendulum supports for connecting said bolt to said housing.

26. (new) An arrangement as defined in claim 24, wherein said four-bar linkage connects said bolt with said housing.

27. (new) An arrangement as defined in claim 24, including a slide connecting said bolt with said housing and guided on a straight line in said housing in a positive-fit manner.

28. (new) An arrangement as defined in claim 24, wherein said driving element has a hydraulic play compensating element.

29. (new) An arrangement as defined in claim 24, including at least one cam disk for adjusting a position of said bolt on said adjustment curve, said bolt being supported along said adjustment curve in a substantially tangential direction with respect to said housing.

30. (new) An arrangement as defined in claim 24, including a hydraulic unit for specifying positions of said bolt on said adjustment curve and supports said bolt along said adjustment curve in tangential direction against said housing.

31. (new) An arrangement as defined in claim 29, including an adjusting shaft for mounting said cam disk; and a motor for adjusting said adjusting shaft.

32. (new) An arrangement as defined in claim 27, including an adjusting motor and a threaded spindle for bringing said slide into a desired position.

33. (new) An arrangement as defined in claim 24, including a plurality of devices, one of said devices being separately assigned to each of said valves.

34. (new) An arrangement as defined in claim 24, including a device assigned to each two adjacent parallel valves of an engine cylinder.

35. (new) An arrangement as defined in claim 34, including a common intermediate link with two different radial cams for said two valves.

36. (new) An arrangement as defined in claim 34, including two different links with different radial cams for said two valves.

37. (new) An arrangement as defined in claim 24, including transmission elements forming at least one adjustment position for said intermediate link, at least one of said valves remaining closed during rotation of said cams.

38. (new) An arrangement as defined in claim 24, wherein valves of a plurality of engine cylinders are commonly actuated in combination, said bolt being common and continuous for all intermediate links of said valves.

39. (new) An arrangement as defined in claim 24, including at least one cam disk carried on said bolt, said bolt being freely rotatable and said disk being connected in a torsionally rigid manner; an adjusting motor for rotating said bolt, said cam disk being supported with respect to said housing.

40. (new) An arrangement as defined in claim 39, including sliding blocks for supporting said cam disk and being of hard material in said housing.

41. (new) An arrangement as defined in claim 24, including a common adjusting shaft having at least one cam disk with a section remaining in position when said adjusting shaft is twisted.

42. (new) An arrangement as defined in claim 24, including a common adjusting shaft having at least one cam with a section remaining in position when said adjusting shaft is displaced.

43. (new) An arrangement as defined in claim 24, including a crankshaft and a plurality of engine cylinders; a first rotational angle sensor on a flywheel for detecting rotational irregularities on the crankshaft; a second rotational angle sensor on said camshaft rotating at half the crank shaft speed; means for producing signals transmitted to individual drives to even out torque peaks and crankshaft speed by correcting valve strokes of said cylinders with smaller torques upward and larger torques downward.

44. (new) An arrangement as defined in claim 24, including a plurality of engine cylinders with separate means for each cylinder and a drive for actuating said separate means, adjustment movements of said separate means being carried out during common rest phases of the valves operated by respective drives.

45. (new) An arrangement as defined in claim 44, including a rotational angle sensor on said camshaft; and an engine management system for determining phase positions of the rest phases of individual valves from signals of said rotational angle sensor.